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CLAIMS

1. A syringe (1) of non-reusable type comprising: a container (3), a rod (2) cooperating with said container, a piston unit (12) inserted in and reciprocally disposed in said container, and a needle (6), the rod (2) being, by the intermediary of an axial displacement movement, reciprocally disposed in said container (3) and displaying in its end portion, enclosed by the container, a first coupling device (13a) within a two-part coupling arrangement (13), whose second coupling device (13b) is related to said piston unit (12), and where said two coupling devices (13a, 13b) assume a mutually cooperation and an active position while the piston unit (12) is, by the movement of the rod (2), displaced from a position, closely adjacent said needle (11), to a position distal from said needle and gradually brings said coupling devices (13a, 13b) towards and into an inactive position, while the piston unit (12) is, by the movement of said rod (2), displaced from the position distal from the needle (11) towards and/or to the position closely adjacent said needle, the two coupling devices (13a, 13b) permitting, in an inactive position, an axial movement of the rod (2) to take place without cooperating with said piston unit (12), characterised in that, said second coupling device (13b) is provided with a piston unit (12') related means (10a), rotary coordinated with said piston within a piston unit (12', said unit (12') displays a sub portion (12a) adapted for a rotary cooperation with a recess (12a) in said piston unit (12'), said means (10) displays a supporting sliding surface (10b), facing towards a sliding surface provided on said piston unit (12') where in any event one of said sliding surface is of a planar configuration, said means (10) also displays a portion (11) facing inwardly into the container (3) with a sliding surface (11a) associated with the coupling device (13b) and given a configuration and a curvature associating to a cylindrical helix and/or to a conical helix, whereby said portion (11) of the means (10) facing inwardly into the container, displays a support surface (13c), oriented transversely of a centre line (1') related to said means (10), and that said support surface (13c) is cooperating with a further support surface (13d), each adapted with a covering area to form surfaces which have a total area less than a cross section of said container (3) and in said inactive position, said support surfaces (13c, 13d) are disposed laterally related and free from one another for a free passage of the support surface (13d) associated with the rod (2) to pass the support surface (13c) associated with the piston (12).

2. A syringe as claimed in Claim 1, **characterised in that**, said sub portion (12a) is given a spherical configuration.

3. A syringe as claimed in Claim 1, **characterised in that**, a support associated with said first coupling device (13a) is in the form of a catch, oriented transversely of a centre line (1') to said means.